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Attachments following last page of this Amendment:

Affidavit of Inventor Jacobus Philippus van Dyk (previously submitted in corresponding PCT application PCT/1B99/01326, filed on July 27, 1999), submitted herein pursuant to 37 C.F.R. § 1.132

#19

In the matter of:

INTERNATIONAL PATENT APPLICATION NO. PCT/IB99/01326

AFFIDAVIT

I, the undersigned,

JACOBUS PHILIPPUS VAN DYK

a citizen of the Republic of South Africa and presently residing at 585 Gerhard Marais Street, Constantia Park, Pretoria, South Africa do hereby make oath and say:-

1.

The facts contained herein are true and correct and are within my personal knowledge, or have been obtained from records to which I have access.

2.

I have received a MEng(Metallurgy) from the University of Pretoria in 1997. I am currently employed by Iscor Limited and work extensively with processes regarding the upgrading of titania slag.

3.

A sample of titania slag derived form a rock type ilmenite ore with the following

composition (expressed as mass percentages) was obtained:

TiO_2	79.3%
FeO	10.5%
MgO	4.89%
Al_2O_3	1.43%
CaO	0.58%
V_2O_5	0.37%
Cr_2O_3	0.13%
MnO	0.86%
SiO_2	5.2%

4.

The slag of paragraph 3 had a particle size of –850+106µm and was roasted at 850°C in air for two hours and was then reduced in 100% CO for 30 minutes. A fluid bed reactor was used for both the oxidation step and reduction step. The oxidised and reduced slag was then subjected to leaching in boiling 20% hydrochloride acid for eight hours at atmospheric pressure. The composition of the leached residue expressed as mass percentages was as follows:

TiO_2	85%
FeO	6.25%
MgO	4.28%
Al_2O_3	1.25%
CaO	0.46%
V_2O_5	0.34%
Cr_2O_3	0.11%
MnO	0.56%
SiO_2	5.09%

An x-ray diffraction pattern of the oxidised slag is attached as Annexure JPvD1 and shows that no anatase phase stabilised after oxidation. A chemical composition profile through an oxidised slag particle is attached hereto as Annexure JPvD2 which shows limited iron migration to the exposed surface of the particle.

SIGNED at Pretoria, South Africa on this the 27th day of July 2000.

J. P. VAN DYK

I hereby certify that the abovementioned deponent appeared before me and, on being asked by me, declared that he knows and understands the contents of this affidavit, that he has no objection to taking the oath and that he considers it to be binding on his conscience.

SIGNED at Pretoria, South Africa on this the 27th day of July 2000.

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COMMISSIONER OF OATHS

MAHLANE THOMAS MAFOKOANE
119 DUXBURY ROAD
HILCREST
PRETORIA.

SUID-AFRIKAANSE POLISIEDIENS
GEMEENSKAPSDIENSSENTRUM
2000 -07- 27
COMMUNITY SERVICE CENTRE
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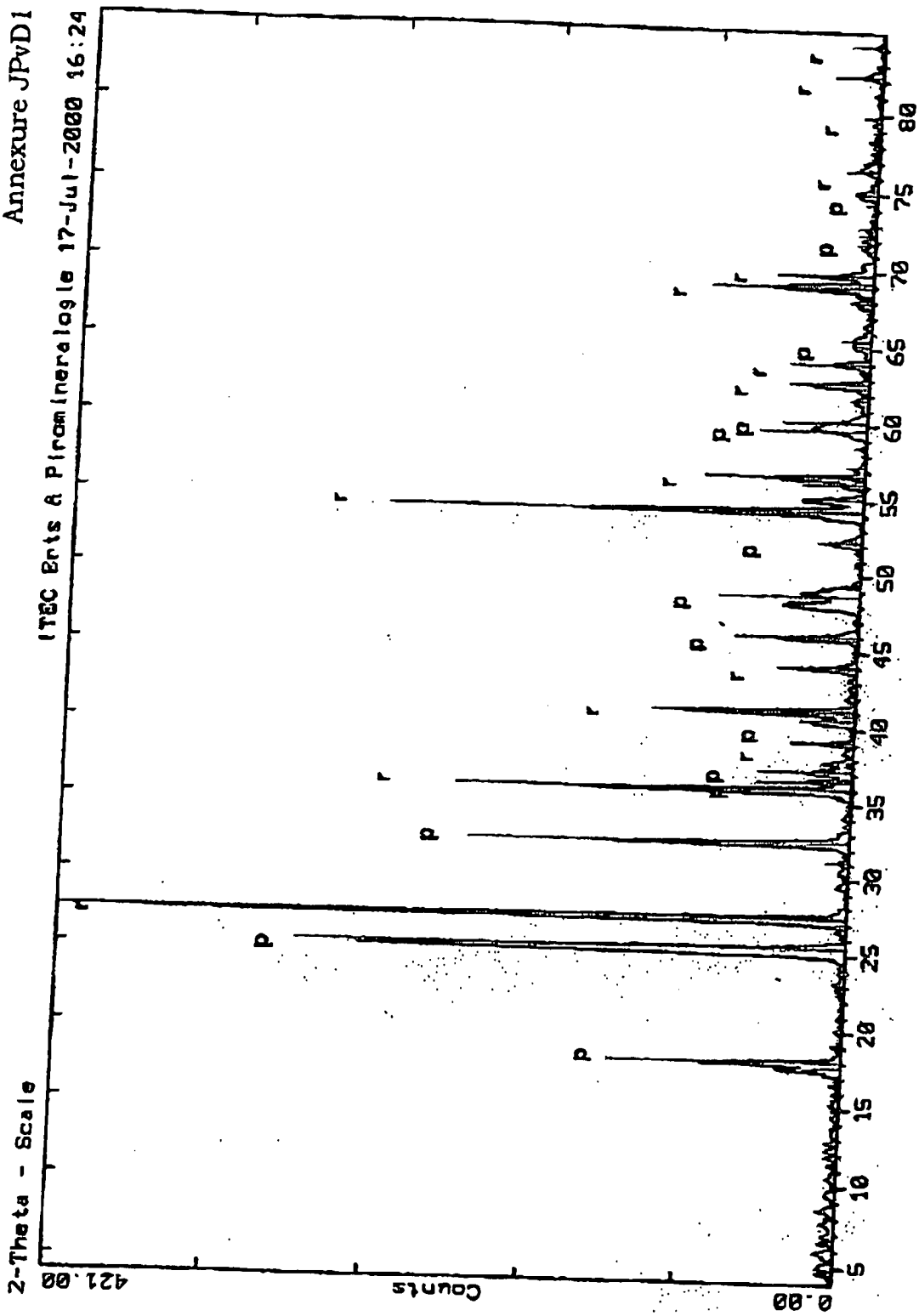
SOUTH AFRICAN POLICE SERVICE

Annexure JPvD1



Annexure JPvD2